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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,605	07/23/2003	Herbert Schrefl	P23976	7592

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EXAMINER
PATEL, VISHAL A

ART UNIT	PAPER NUMBER
3679	

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/624,605	SCHREFL ET AL.	
	Examiner	Art Unit	
	Vishal Patel	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 20-54* is/are pending in the application.

4a) Of the above claim(s) *8,9,25,27,41-44 and 52-54* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,10-18,20-24,26,28-30,32-36 and 45-51* is/are rejected.

7)☒ Claim(s) *31 and 37-40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 13-18, 20-22, 26, 28-29, 30, 33-36 and 45-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Brendel (US. 5,141,238).

Brendel discloses a sealing device (device formed by 10', 1 and 8-9) for sealing at least one zone of underpressure or overpressure adjoining a moving surface (intended use, moving surface of roll 2). The sealing device comprising at least one sealing element, positionable opposite the moving surface to form a front and a rear (front that contacts the roll and the rear contacts 9), with respect to a surface running direction, comprising a sealing section located at the front and a ventilation section located at the rear. The sealing section being structured to sealingly interact with the moving surface. The ventilation section being structured and arranged to form a gap with the moving surface that widens in the surface running direction (gap widens in a surface running direction 6). The sealing element is pivotally mounted at an end of the ventilation section to pivot relative to the moving surface to position the at least one sealing element into an operating position (operational condition, not given patentable weight but Brendel is capable of pivoting relative to the moving surface). The sealing section adjoins the ventilation section. The ventilation section is structured to continuously decrease in cross section away from the sealing section (this is the case as seen in figures).

The moving surface is arranged in a paper making machine (intended use). The sealing gap has a continuously increasing depth in the surface running direction. The sealing section and the ventilation section are composed of a same material. The sealing section and the ventilation section are formed as a single piece. In said operation position (intended use) the sealing section is in contact with the moving surface and the gap is formed between the ventilation section and the moving surface (intended use, but this is the case in Brendel). The sealing is pivotable about an axis extending transversely to the running surface (fig. 2). The sealing element comprises a sealing strip (10') and the sealing strip extends transversely to the running direction. The sealing is pivotally mounted in a region of the end located at the rear (figure 2).

Regarding claim 15: The rear end (4') that contacts 1. The ventilation section is formed by portion that extends below 23.

Regarding claims 21-22: Brendel discloses a sealing device (device formed by 10', 1, 8 and 9) for sealing at least one zone of underpressure or overpressure adjoining a moved surface (intended use). The sealing device comprising at least one sealing element, positionable opposite the moving surface (intended use) to from a front (front in contact with 2) and a rear (rear in contact with a rocker bearing 1), with respect to a surface running direction (surface direction), comprising a sealing section located at the front and a ventilation section located at the rear. The at least one sealing element being pivotally (invented use) mounted to pivot relative to the moving surface to position the at least one sealing element into an operating position (intended use). In the operating position, the sealing section is in sealing contact with the moving section and a gap is formed between the ventilation section and the moving surface (intended use). The

sealing element is pivotally mounted in a region of an end face located at the rear (rear end face of the rear that is contacting 1). The sealing device comprising a rocker bearing (rocker bearing formed by the end face and the member 1) arrangement pivotally mount the sealing element (intended use).

Regarding claims 30, 32 and 34-36: The sealing device comprising a pressure device coupled to the sealing element (pressure applied by a pressure device 9). The sealing element is loadable into the operating position by the pressure device (intended use). The sealing element is permanently loadable into the operating position by the pressure device during operation (intended use). The sealing element chargeable via the pressure device in a region of the sealing section (intended use). The sealing element positionally adjusted via the pressure device to compensate for wear of the sealing element (intended use). The pressure device is arranged at a side of the sealing element remote from the moving surface (the pressure device 9 is remote from the moving surface).

Regarding claim 33: The sealing element is held in the operating position by friction clamping (friction clamping formed by 9).

Regarding claim 47: The sealing device comprising a side sealing (side sealing of the roll 2) at least one pressure zone of underpressure or overpressure adjoining a rotating jacket of one of a suction roll, a blow roll and a moving blade (roll 2).

Regarding claim 48-50: The sealing device structured for sealing at least one pressure zone adjoining a rotation jacket of one of a suction roll and blow roll (intended use) and the sealing element comprises a sealing strip (10') extending at least substantially over an entire length of the roll (2).

Regarding claim 49: The sealing device structured and arranged between one of a suction box and a blow box (formed by 1) and a rotating jacket of one of a suction roll, blow roll and moving band (roll 2).

3. Claims 23-24 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Wicks (US. 4,783,085).

Wicks discloses a sealing device (device formed by 46, 28 and 26) for sealing at least one zone of underpressure or overpressure adjoining a moved surface (intended use). The sealing device comprising at least one sealing element, positionable opposite the moving surface (intended use) to from a front and a rear, with respect to a surface running direction (surface direction), comprising a sealing section located at the front and a ventilation section located at the rear (sealing section near 24 and ventilation section at an opposite end of 24, near 44). The at least one sealing element being pivotally (invented use) mounted to pivot relative to the moving surface to position the at least one sealing element into an operating position (intended use). In the operating position, the sealing section is in sealing contact with the moving section and a gap is formed between the ventilation section and the moving surface (intended use). The sealing element is pivotally mounted in a region of an end face located at the rear (the pin part 36 at the end of the rear and the two grooves above the pin part). The sealing device comprising a rocker bearing (bearing between the pin, groove, the member 28 and member 46) arrangement pivotally mount the sealing element (intended use). The sealing device comprising a pivot bearing arrangement to pivotally mount the sealing element and the pivot bearing comprising a fixed bearing element arranged to engage the groove (fixed element 24 engages grooves in the sealing element 26). In the operating position the

sealing element is in sealing contact with the moving surface and a gap is formed between the ventilation section (contact at 24 and portion above 36) and the moving surface (intended use). The groove is arranged at a rear end face located at the rear (grooves above 36). The sealing device further comprising a fixed guide surface (surface 44) arranged in a region of a front end face of the sealing element and the fixed guide surface being structured and arranged to permit the pivoting movement of the sealing element to prevent the sealing element from moving away from the fixed bearing element thereby maintaining the pivot bearing (this is the case since 44 and 46 are used to prevent movement of the member 26 except pivotal movement). The guide surface is planar (the guide surface is formed in a planar form).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brendel in view of Kawamura et al (US. 4,295,654).

Brendel discloses the invention substantially as claimed above but fails to disclose the sealing device to be formed of at least one of rubber graphite, polyethylene (polyethylene comprising thermoplastic UHMW) and thermosetting plastic. Kawamura teaches to have a seal be made of a polyethylene having thermoplastic UHMW (column 3, lines 43-58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the sealing device of Brendel to be made from polyethylene

having thermoplastic UHMW as taught by Kawamura, to provide a wear-resistant or abrasion-resistant sealing device (column 3, lines 44-45 of Kawamura).

Response to Arguments

6. Applicant's arguments filed 6/20/05 have been fully considered but they are not persuasive.

Applicants' argument that Brendel does not disclose a sealing section located at front and a ventilation section located at the rear and the sealing element is pivotally mounted at an end of the ventilation section as mentioned in claim 1 is not persuasive because as noted in the rejection, Brendel teaches that the at least one sealing element, positionable opposite the moving surface to form a front and a rear (front that contacts the roll and the rear contacts 9), with respect to a surface running direction, comprising a sealing section located at the front, a ventilation section located at the rear, the sealing section being structured to sealingly interact with the moving surface, the ventilation section being structured and arranged to form a gap with the moving surface that widens in the surface running direction (gap widens in a surface running direction 6) and the sealing element is pivotally mounted at an end (end contacting 1) of the ventilation section to pivot relative to the moving surface to position the at least one sealing element into an operating position (operational condition, not given patentable weight but Brendel is capable of pivoting relative to the moving surface).

Applicants' argument that Brendel does not disclose a sealing section located at front and a ventilation section located at the rear and the at least one sealing element being pivotally mounted at an end of the ventilation section to pivot relative to the moving surface to position the at least one sealing element into an operating position as

mentioned in claim 15 is not persuasive because as noted in the rejection, Brendel teaches that the at least one sealing element, positionable opposite the moving surface to form a front and a rear (front that contacts the roll and the rear contacts 9), with respect to a surface running direction, comprising a sealing section located at the front, a ventilation section located at the rear, the sealing section being structured to sealingly interact with the moving surface, the ventilation section being structured and arranged to form a gap with the moving surface that widens in the surface running direction (gap widens in a surface running direction 6), the sealing element is pivotally mounted at an end (end contacting 1) of the ventilation section to pivot relative to the moving surface to position the at least one sealing element into an operating position (operational condition, not given patentable weight but Brendel is capable of pivoting relative to the moving surface), the rear end (4') that contacts 1 and the ventilation section is formed by portion that extends below 23.

Applicants' argument that Brendel does not disclose the sealing element is pivotally mounted at a region of an end face located at the rear as mentioned in claim 21 is not persuasive because as noted in the rejection, Brendel teaches that the at least one sealing element, positionable opposite the moving surface to form a front and a rear (front that contacts the roll and the rear contacts 9), with respect to a surface running direction, comprising a sealing section located at the front, a ventilation section located at the rear, the sealing section being structured to sealingly interact with the moving surface, the ventilation section being structured and arranged to form a gap with the moving surface that widens in the surface running direction (gap widens in a surface running direction 6), the sealing element is pivotally mounted at an end (end contacting 1) of the

ventilation section to pivot relative to the moving surface to position the at least one sealing element into an operating position (operational condition, not given patentable weight but Brendel is capable of pivoting relative to the moving surface), the rear end (4') that contacts 1, the ventilation section is formed by portion that extends below 23 and the sealing element is pivotally mounted in a region of an end face located at the rear (rear end face of the rear that is contacting 1).

Applicants' argument that Wicks does not disclose a sealing element having a sealing section located at the front and a ventilation section located at the rear, having a groove to be pivotally mounted, a pivot bearing arranged to pivotally mount the sealing element, the pivot bearing comprises a fixed bearing element arranged to engage the groove and the operating position of the sealing section is in contact with the moving surface and a gap is formed between the ventilation section and the moving surface as recited in claim 23 is not persuasive because as noted in the rejection, Wicks teaches that a sealing device comprising at least one sealing element having a sealing section located at the front and a ventilation section located at the rear (sealing section near 24 and ventilation section at an opposite end of 24, near 44), the at least one sealing element being pivotally (invented use) mounted to pivot relative to the moving surface (intended use) to position the at least one sealing element into an operating position (intended use), in the operating position, the sealing section is in sealing contact with the moving section and a gap is formed between the ventilation section and the moving surface (intended use but a gap is formed between the ventilation section and a surface), the sealing element is pivotally mounted in a region of an end face located at the rear (the pin part 36 at the end of the rear and the two grooves above the pin part), the sealing device comprising a

rocker bearing (bearing between the pin, groove, the member 28 and member 46) arrangement pivotally mount the sealing element (intended use), the sealing device comprising a pivot bearing arrangement to pivotally mount the sealing element and the pivot bearing comprising a fixed bearing element arranged to engage the groove (fixed element 24 engages grooves in the sealing element 26), in the operating position the sealing element is in sealing contact with the moving surface (intended use, the sealing element is in contact with a surface) and a gap is formed between the ventilation section (contact at 24 and portion above 36) and the moving surface (intended use), the groove is arranged at a rear end face located at the rear (grooves above 36), the sealing device further comprising a fixed guide surface (surface 44) arranged in a region of a front end face of the sealing element and the fixed guide surface being structured and arranged to permit the pivoting movement of the sealing element to prevent the sealing element from moving away from the fixed bearing element thereby maintaining the pivot bearing (this is the case since 44 and 46 are used to prevent movement of the member 26 except pivotal movement) and the guide surface is planar (the guide surface is formed in a planar form).

Applicants' argument that neither Brendel nor Kawamura disclose a sealing element pivotally mounted at the rear end position of the sealing element is not persuasive because as noted in the rejection, Brendel discloses the sealing element pivotally mounted at the rear end position of the sealing element. Furthermore, Kawamura is only used to teach that a sealing element is formed a polyethylene having thermoplastic UHMW.

Allowable Subject Matter

7. Claims 31 and 37-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP
August 23, 2005

Vishal Patel
Patent Examiner
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